

A grayscale image of a handheld electronic device, the NURIT 8000. It has a rectangular shape with a screen at the top, a numeric keypad below it, and a small antenna on the right side. The device is shown at an angle, with its top edge slightly raised.

NURIT 8000

**Wireless
Palmtop Solution**

Installation Manual

Copyright

Copyright© Lipman Electronic Engineering Ltd.

All rights reserved.

The content of this publication is for informational purposes only and is subject to change without notice. It does not represent a commitment on the part of Lipman Electronic Engineering Ltd.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated to any language in any form by any means without the prior written permission of Lipman.

Trademark Information

NURIT® is a registered trademark of Lipman Electronic Engineering Ltd. All other product and brand names contained in this manual are trademarks of their respective companies.

Catalog Number

DOC095EN02-A

Print Date

November 2005



Foreword

Thank you for purchasing the NURIT 8000 Wireless Palmtop Solution. You now own one of the most advanced electronic point-of-sale (POS) terminals manufactured today.

This manual provides basic installation instructions. To fully utilize the features of your NURIT 8000, and for general safety purposes, it is recommended that you familiarize yourself with this manual, the terminal and any peripheral equipment or accessories.

It is recommended that you store this manual in a safe place for future reference.

Note

All graphic images in this manual are for illustrative purposes only.

Different models of this terminal may exist and may vary in appearance according to country of use or particular customer requirements.

The basic installation procedure is the same for most units.

The operation of the terminal is application-dependent.

Document Conventions

Warning - Failure to follow specific procedures and practices may result in personal injury.

Caution - Failure to follow specific procedures and practices may result in damage to the NURIT device or other equipment.

Note - Helpful hints and other important information about the use of the NURIT device.



Table of Contents

Foreword	iii
Document Conventions	iii
1. Product Regulatory Information	1
2. General Safety Instructions	4
Radio Frequency Energy Emission	6
Safety Precautions for Medical Devices	7
3. Specifications	8
4. Initial Setup	9
Unpacking the Box	9
Contents Checklist	10
Selecting a Point-Of-Sale Location	12
Wireless LAN (WiFi) Terminals	13
5. Optional Accessories	14
6. General Features	16
7. Installing the Battery Pack	18
Battery Pack Maintenance	19
8. Connecting the NURIT 8000 to an AC Power Outlet	20
Battery Pack Charge Status	20
9. Installing the External Modem	21
10. Connecting the Car Adapter	22
11. Loading Paper in the Printer	23
12. Installing the Keypad Privacy Shield	24
13. Installing a SIM, SAM, or SD/MMC Card	25
Electronic Cards Configurations	26
Installing SIM and SAM Cards in the Electronic Cards Compartment:	27
Installing a SIM Card in the TEL SIM Slot	28
Installing an SD/MMC Card	30
Installing the Electronic Cards Compartment Cover	31
14. Connecting Peripheral Devices	33
15. Connecting a Cellular Headset	34
16. Care and Maintenance	35
Technical Assistance	35



Cleaning the NURIT 8000	36
Cleaning the Printer	36
Shipping the NURIT 8000	37
17. Troubleshooting	38
Appendix A: Using the Magnetic Card Reader	42
Appendix B: Using the Smart Card Reader	43
Contact Information	44



List of Figures

Figure 4-1	Secure Device Label	9
Figure 4-2	NURIT 8000 - Box Contents.	11
Figure 5-1	NURIT 8000 - Optional Accessories.	14
Figure 6-1	NURIT 8000 - General Features	17
Figure 7-1	Battery Pack Installation	18
Figure 7-2	Battery Pack Removal	18
Figure 8-1	AC Power Connection	20
Figure 9-1	External Modem Installation.	21
Figure 10-1	Car Adapter Connection	22
Figure 11-1	Loading Paper in the Printer.	23
Figure 12-1	Keypad Privacy Shield Installation	24
Figure 13-1	Electronic Cards Configurations	26
Figure 13-2	SIM/SAM Cardholder Locking-Clasp	27
Figure 13-3	SIM/SAM Card Installation	28
Figure 13-4	SIM Cardholder Ejection	29
Figure 13-5	SIM Card Installation	29
Figure 13-6	SIM Cardholder Insertion	29
Figure 13-7	Positioning the SD/MMC Card	30
Figure 13-8	Inserting the SD/MMC Card.	31
Figure 13-9	Installing the Electronic Cards Compartment Cover	32
Figure 13-10	Void Label Installation	32
Figure 14-1	Peripheral Device Connection.	33
Figure 15-1	Cellular Headset Connection	34
Figure A-1	Magnetic Card Reader	42
Figure B-1	Smart Card Reader	43



1. Product Regulatory Information

Note

The following product regulatory information and compliance statements apply to all models of the NURIT 8000x, where x represents a suffix, such as S, SVP, or Secure, designating the specific security features of a particular model.

Caution

Changes or modifications to this device that are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Statement



Manufacturer: Lipman Electronic Engineering Ltd.
Model: NURIT 8000

FCC Part 15 Requirements

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is installed and operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.



If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your dealer or an experienced technician for help.

Connection of peripherals to this unit requires the use of grounded, shielded cables to ensure compliance with the class B limits.

FCC Part 68 Requirements

[Applicable when using optional NURIT 8000 docking station or NURIT 8000 external modem]

The FCC has established rules permitting this device to be directly connected to the telephone network. Standardized FCC Part 68 compliant telephone line cords and modular jacks are used for these connections. This equipment should not be used on party or coin lines.

If this device is malfunctioning, it may be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.

The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes. You will be advised to file a complaint with the FCC.

If the telephone company requests information on what equipment is connected to their lines, inform them of:

- The telephone number to which this unit is connected
- The AC Ringer Equivalence Number: 00B
- The USOC jack required: RJ-11C
- The FCC Registration number: O2SNURIT8000SSQ



The Ringer Equivalence Number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5). If too many devices are attached, they may not ring properly. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

FCC Part 24 Requirements

This device may contain a radio transceiver module, (FCC ID number is located on the bottom of the terminal), operating under Part 24 of the FCC rules in a licensed part of the radio spectrum. Qualified personnel must perform service or repairs to the radio portion of this device. Any unauthorized modification to the radio module, shielding, or antenna system may void the user's authority to operate this device.

This device has been tested and meets RF exposure guidelines for hand held operation pursuant to FCC OET Bulletin 65 Supplement C ed. 01-01, IEEE 1528/D1.2 (2003) and Industry Canada RSS-102 (1999).

In Canada

This digital apparatus does not exceed the class B limits for radio noise emissions from digital apparatuses set forth in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil digital n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils de la classe B, déterminée par la Réglementation d'Interférence Radio du Ministère Canadien des Communications.

IC: 4804A-N8000SSQ

EU Directives Compliance Statement



This product complies with the requirements of applicable EU Council Directives.



2. General Safety Instructions

Warning

Failure to observe these instructions may result in severe personal injury or damage to the NURIT 8000 or other equipment.

Note

These safety instructions are based in general on those provided by Underwriters Laboratories (UL) Inc. U.S.A.

When using the NURIT 8000 or any associated device, the following basic safety precautions should always be observed to reduce the risk of fire, electric shock, or personal injury.

- Read and make sure you understand all instructions.
- Follow all warnings and instructions marked on the device and in this manual.
- Disconnect the device from the power supply and any peripherals before cleaning.
- Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning and/or a soft brush.
- Do not use the device near water, especially when using the AC/DC Power Adapter or external modem.
- Never spill any liquid on the device.
- Place the device in a stable position on a solid surface. When operated hand-held, grasp the device securely. Serious damage may result if the device falls.
- The optimal operational position for the terminal is hand-held at an angle of approximately 30°. The terminal is also designed for optimal tabletop usage. Keep the terminal a short distance from your body.
- Do not cover slots and openings of the device. They may be provided for ventilation and protection against overheating. Never place the device near radiators, or in a place where proper ventilation is not provided.
- Do not place objects on the power cord. Install the device where no one can step on the cord.



- Use only the power source as marked on the device. If you are not sure of the type of the power supplied to your location, consult your dealer or local power company.
- Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
- Never push objects into the device through slots (other than those specifically intended for the stylus, magnetic stripe or smart cards, SAM/SIM cards, or SD/MMC card), as this may result in fire or electric shock.
- To reduce the risk of electric shock, do not disassemble any of the equipment or accessories referred to in this manual. If required, take the equipment to a qualified service representative. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock.
- Take care when installing an internal battery pack. If installed incorrectly, it may explode. Use only a Lipman supplied battery pack. Discard used battery packs according to local regulations.
- Disconnect the device from the power supply and any peripherals and refer to qualified service personnel under the following conditions:
 - The power supply cable or plug is damaged or frayed.
 - Liquid has been spilled into the device.
 - The device has been exposed to rain or water.
 - The device does not work normally, when following the operating instructions.
 - The device has been dropped or damaged.
 - The device exhibits a distinct change in performance.
- When using the NURIT 8000 optional docking station and/or external modem during thunderstorms, disconnect the telephone line, if possible. There may be a remote risk of electric shock from lightning.
- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Use caution when installing or modifying telephone lines.
- Never touch non-insulated telephone wires or equipment unless the telephone line has been disconnected at the network interface.



- When in the vicinity of a gas leak, do not use the NURIT 8000, a standalone telephone or a telephone connected to a NURIT 8000 docking station to report the leak.
- Do not use the NURIT 8000 in an area of potential explosive atmosphere, such as fuel or chemical storage or transfer facilities, or in any area where you would be advised to turn off a vehicle's engine.
- Do not replace the battery pack or charge the NURIT 8000 in an area of potential explosive atmosphere.
- Do not use the NURIT 8000 in a known blasting area.
- Do not place the NURIT 8000 in the area over a vehicle-equipped air bag.
- If the battery pack has been removed, ensure that no metal objects come in contact with its electrical contacts.
- The NURIT 8000 is designed for use with a built-in internal antenna. Do not open the device with the intent of tampering with the antenna system. Doing so may damage the unit and violate FCC (Ministry of Communications) regulations.

Radio Frequency Energy Emission

Your NURIT 8000 may contain a transmitter and receiver that emit radio frequency (RF) energy. The actual frequency range used by the NURIT 8000 is radio-modem dependent according to the specific model. Digital modulation techniques are used. During radio communication, the local radio system handling the actual communication controls the actual power transmission output level. This output level may typically vary (relative to the distance between the user location and the cell transmission sites).

RF energy may affect some electronic systems. Consult the specific device manufacturer (or airline crew for possible airborne operation) regarding permission to use this device while airborne and associated problems. It is currently known that use of all radio-type devices is prohibited while airborne.

- When used properly, the design of this handheld wireless terminal complies with U.S., Canadian, European and other standards for protection from public exposure to RF magnetic signals.



- This device has been tested and meets RF exposure guidelines for hand held operation pursuant to FCC OET Bulletin 65 Supplement C ed. 01-01, IEEE 1528/D1.2 (2003) and Industry Canada RSS-102 (1999).

Warning

The NURIT 8000 must be located at least 20 cm from all persons, and must not be co-located or operated in conjunction with any other antenna or transmitter.

Safety Precautions for Medical Devices

For those persons using a pacemaker or other medical device, please read the following important safety notes:

- Though most electronic equipment and critical medical devices are shielded against radio-frequency signals, it is important to realize the possibilities of potential interference and to know the standard precautions that may be taken.

Pacemakers

Industry standards recommend a minimum separation of 15 cm (6 inches) between a wireless phone-type device and a pacemaker to prevent any potential problems.

Individuals using a pacemaker should:

- Always keep the NURIT 8000 terminal more than 15 cm (6 inches) from the pacemaker when using the unit for cellular wireless communication or when performing an online transaction.
- Turn off the NURIT 8000 terminal immediately and disconnect it from the power supply if you suspect any problem of interference.

Other Medical Devices

Consult the manufacturer of your medical device to determine its level of shielding. Depending on the proximity to certain equipment, you may be asked not to use your NURIT terminal or one of its accessories.



3. Specifications

<i>Specification</i>	<i>Details</i>
Power	• Terminal: 8.4 VDC at 1.0 A • AC/DC Adapter (Safety Approved) Input: 100-240 VAC at 50/60 Hz (0.8 A) Output: 8.4 VDC at 1.0 A
Dimensions	• Height: 55 mm (2.17 in) • Width: 91 mm (3.58 in) • Depth: 210 mm (8.27 in)
Paper Roll	• 57 mm x 38 mm (2.25 in x 1.5 in) • 10.5 mm (0.4 in) core diameter
Weight	• Terminal: 600 g (21.2 oz) Including privacy shield, battery pack and paper roll • Shipping: 800g (28.2 oz) Not including this manual
Modem Communication Rate	• 56 Kbps (maximum)
Approvals	• EMV Levels 1 and 2 • Visa PED (optional) • FCC Part 15 Class B • CE

Note

Specifications are subject to change without notice following technological improvement of the device and its components.



4. Initial Setup

Unpacking the Box

To unpack the box:

1. Place the box right side up on a stable, flat surface.
2. For secure models of the NURIT 8000, verify that the Secure Device label that seals the box is intact.

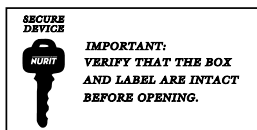


Figure 4-1 Secure Device Label

Caution

If the Secure Device label is damaged or missing, do not open the box. This could be an indication of device tampering and may affect the validity of the warranty for the device. Notify your Lipman distributor.

3. For secure models of the NURIT 8000, peel off or cut through the Secure Device label.
4. Open the box and carefully remove its contents.

Note

It is recommended that you save the box for future repacking or moving of the terminal.

5. Carefully inspect the contents for any damaged or missing components.



Note

Lipman has taken all measures to provide you with a complete device. If shipping damage is evident, file a claim with the shipping company. Notify your Lipman distributor concerning this damage, and if any components are missing.

Contents Checklist

The following items should be found inside the box:

Note

Any one or more of the included accessories may be already attached to the terminal.

Note

The contents of the documentation pack may vary depending on specific customer documentation requirements.

Note

Depending on the particular model of the NURIT 8000, the external modem or the car adapter may also be included in the contents of the box. See **“Optional Accessories” on page 14.**

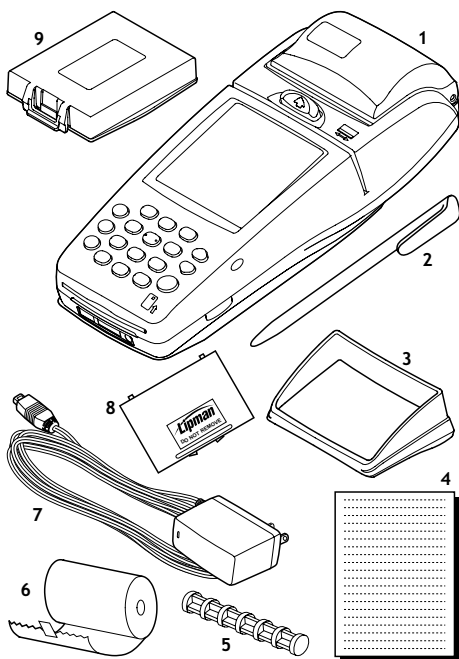


Figure 4-2 NURIT 8000 - Box Contents

1	NURIT 8000 terminal	2	Touch Screen Stylus
3	Keypad Privacy Shield	4	Documentation Pack
5	Paper Roll Spindle	6	Thermal Paper Roll
7	AC/DC Power Adapter (boxed)	8	Electronic Card Compartment Cover with Void Label
9	Lithium-Ion Battery Pack		



Selecting a Point-Of-Sale Location

The NURIT 8000 is designed to be operated in the following locations:

- Indoors, using the AC/DC Power Adapter, optional docking station or optional external modem.
- Outdoors, powered only by the built-in battery pack.
- In a vehicle, using the optional car adapter.

Warning

Do not locate the terminal where it is exposed to the following:

- Devices that radiate excessive electrical noise or voltage fluctuations, such as air conditioners, fans, electric motors, neon signs, or high-frequency security devices.
- Water containers, such as a sink, a laundry tub or a pool.
- Areas of excessive moisture, heat, oil, dust or debris.
- Direct sunlight or objects that radiate heat.
- Metal partitions or such obstructions that may disrupt radio transmission or reception if your terminal is used as a wireless device.

Caution

Under no circumstances should the NURIT 8000 be powered or charged outdoors using its AC/DC adapter or docking station.

- When not operated from its hand-held position, place the NURIT 8000 on a flat table or countertop close to the power outlet and any peripherals.
- Maintain good ventilation around the terminal. Provide for at least 22 cm (8.5 in) of clear space around the terminal in its fixed operating location.
- Do not cover the terminal.

**Note**

Before using the NURIT 8000, remove the thin transparent plastic membrane that covers the LCD screen.

Note

Do not use a NURIT 8000 that shows any signs of damage.

Wireless LAN (WiFi) Terminals

Some NURIT terminals are equipped with transceivers that can access Wireless Local Area Networks (WLAN), which are often used for short-range wireless communications in home and office environments, retail stores, restaurants, and gasoline stations. The terminals commonly connect to the WLAN via a WiFi access point or repeater.

Several types of WLAN communication standards exist. NURIT WLAN terminals are equipped with transceivers that comply with the IEEE 802.11b (WiFi) standard.

- Verify that all the WiFi access points and repeaters comply with this standard.
- Locate the access point or repeater as close as possible to the area where the NURIT WLAN terminals are to be operated. (Follow manufacturer-supplied installation instructions and guidelines of the WiFi access points or repeaters.)
- If the NURIT WLAN terminals are used over a defined area, such as within a restaurant or retail store, the WiFi access point or repeater should be located as close as possible to the center of this area.
- If the area where the NURIT WLAN terminals are used exceeds the maximum range for WiFi reception, install additional access points or repeaters as required.
- Do not locate the WiFi access point or repeater where metal objects or electrical appliances may obstruct communication with the terminals.



5. Optional Accessories

Caution

Connection of any accessory that is not explicitly approved by Lipman may cause damage and thus void the Limited Warranty of this equipment.

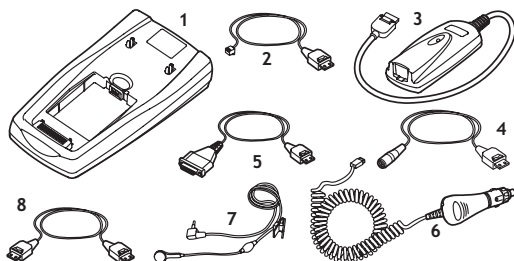


Figure 5-1 NURIT 8000 - Optional Accessories

1	Docking Station	5	PC-Terminal Cable
2	Barcode Adapter	6	Car Adapter
3	External Modem	7	Cellular Headset
4	Keyboard Emulation Cable	8	Terminal-Terminal Cable

Note

Availability of the optional accessories may vary according to customer requirements. Consult your authorized Lipman representative for information regarding availability of current or future optional accessories.



<i>Accessory</i>	<i>Details</i>
Docking Station	• Charger for the terminal battery pack and for the optional spare battery • Connects to peripheral devices • Optional integrated telephone line modem, equivalent to the External Modem accessory
Standard RS-232 Barcode Reader Adapter	• Connects to an RS-232 barcode reader
External Modem	• Up to 14.4 kbps, 33.6 kbps or 56 kbps telephone line modem • Implements synchronous or asynchronous, HDLC, TCP/IP protocols • Supports FastConnect connectivity • May be supplied with the terminal as a standard accessory (model-dependent).
Keyboard Emulation Barcode Reader Adapter	• Enables connection of a PC keyboard or barcode reader to the terminal • Facilitates the entry of catalog items and other data
PC-Terminal Cable	• Cable used for downloading software applications to the terminal • Connects to an RS-232 COM port on the PC
Car Adapter	• Connects to standard 12V vehicle electrical power socket • Used to power the NURIT 8000 and to charge its battery pack • May be supplied with the terminal as a standard accessory (model-dependent).
Cellular Headset Cable	• Hands-free headset • 2.5 mm plug • Not supplied by Lipman. Contact your cellular dealer for purchasing details
Terminal-Terminal Interconnection Cable	• Enables peer-to-peer software updating Note: For security reasons, terminal-terminal software updating is not available for terminals with Secure Download enabled.



6. General Features

The NURIT 8000 includes the following features:

<i>Feature</i>	<i>Description</i>
LCD Display	• Graphical LCD display of general operational prompts and messages • Black and white • 128x128 pixels
Touch Screen	• Application-dependent touch screen
Stylus	• Touch screen stylus • Integrated stylus storage slot
Keypad	• 10-key telephone-style keypad section (including the letters of the alphabet and the numerals 0-9) • 8 function and special keys such as 'Cancel', 'Enter' and 'Backspace'.
Keypad Privacy Shield	• Detachable privacy shield
Smart Card Reader	• Integrated, front-entry smart card reader
Magnetic Card Reader	• Integrated, bi-directional reader for magnetic stripe cards
Electronic Cards Compartment	• Up to two SAM cards • One SAM and one SIM card • One SAM card and one SD/MMC card Note: Configuration is model-dependent
SIM Slot	• Slot for the insertion of a SIM card, depending on the model.
Thermal Printer	• Integrated printer uses thermal paper.
Connectors	• 3-pin Power Jack • Data Port • Headset Jack • Docking Station Connector
Battery Pack	• Smart Lithium-ion battery pack • Supplies 7.2 VDC at 1450 mAH (minimum) • Fully recharges within three hours (80% charge capacity within one hour)

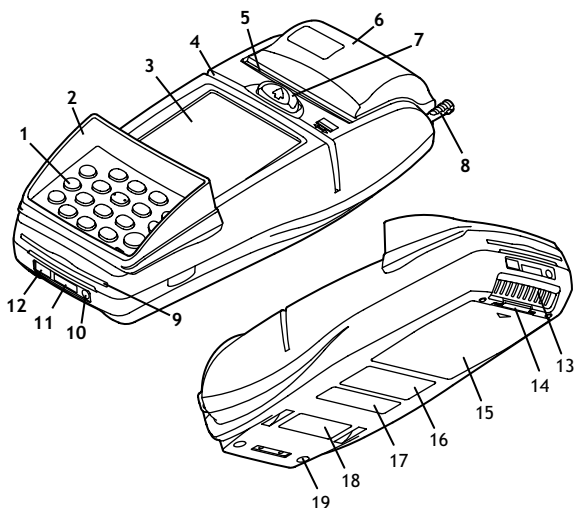


Figure 6-1 NURIT 8000 - General Features

1 Keypad	11 Data Port
2 Keypad Privacy Shield	12 Power Jack
3 LCD Display	13 Docking Station Connection Cover
4 Magnetic Card Reader	14 Battery Pack Release Button
5 Paper Tear Bar	15 Battery Pack
6 Paper Compartment Cover	16 Compliance Label
7 Paper Compartment Cover Release Button	17 Model/Barcode Serial Number Label
8 Stylus	18 Radio Modem Label
9 Smart Card Reader	19 Rubber Stop
10 Headset Jack	



7. Installing the Battery Pack

Caution

Charge the battery pack for a period of 12 hours before first use.

To install the battery pack:

1. Carefully hold the terminal facedown or place it on a soft, smooth surface so as not to damage the LCD touch screen.
2. Hold the battery pack, verifying that the side with an arrow pictogram is facing upward.
3. Slide the two tabs on the front of the battery pack into the slots on the front wall of the battery pack compartment.
4. Press down on the battery pack until it snaps into place.

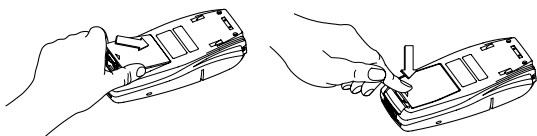


Figure 7-1 Battery Pack Installation

To remove the battery pack:

1. Carefully hold the terminal facedown or place it on a soft, smooth surface so as not to damage the LCD touch screen.
2. Press and lift the locking tab on the battery pack to release it from the compartment.
3. Remove the battery pack from the terminal.

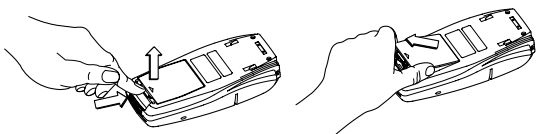


Figure 7-2 Battery Pack Removal



Battery Pack Maintenance

- The supplied high-performance, smart Lithium-Ion battery pack provides 7.2 VDC at 1450 mAH (minimum) capacity.
- When fully discharged, the battery fully recharges within three hours while installed in the terminal. An 80% charge capacity is reached within one hour.
- The terminal can be connected to an AC/DC power supply indefinitely without causing damage to the battery.

Caution

When using the Lipman-supplied AC/DC Power Adapter, the Lithium-Ion battery pack must be installed in the terminal.

- In typical use, the life span of the battery pack exceeds 500 charge cycles, after which, operating time decreases slowly.
- The battery pack has a self-discharge rate. It loses approximately 1% of its charge per day when not in use.
- Replace the battery pack when the charge capacity is too weak for normal operation.
- Remove the battery pack from the terminal if you do not intend to use your NURIT 8000 for an extended period of time.

Warning

Do not dispose of the battery pack in a fire. Dispose of used batteries in accordance with local recycling regulations. If you intend to remove the battery pack, verify that the metal contacts do not come in contact with any metal objects.

Note

Extreme temperatures degrade the battery performance. Do not store the battery pack in temperatures below -20°C (4°F) or above 60°C (140°F).



8. Connecting the NURIT 8000 to an AC Power Outlet

You can connect the NURIT 8000 to an AC power outlet using the Lipman-supplied AC/DC Power Adapter.

To connect the NURIT 8000 to an AC power outlet:

1. Connect the plug of the AC/DC Power Adapter cable to the 3-pin power jack on the front panel of the NURIT 8000.
2. Connect the AC/DC Power Adapter cable to an AC power outlet.

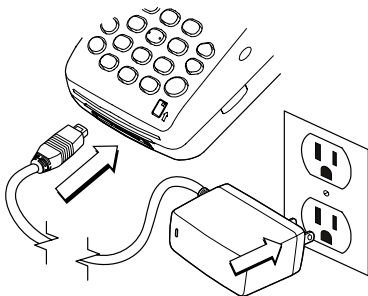


Figure 8-1 AC Power Connection

Battery Pack Charge Status

The LED indicator on the AC/DC Power Adapter and the Car Adapter lights according to the charge status:

Red - The battery pack is charging (less than 80% charged).

Green - The battery pack is charging (80% or more charged).

No Light - The battery pack is fully charged or the charger is disconnected from the AC power outlet.



9. Installing the External Modem

You can use the optional external fast modem to download applications and parameters to the NURIT 8000 via a standard telephone line.

To install the external modem:

1. Insert the modem's data plug into the data port on the front panel of the NURIT 8000.
2. Connect a standard telephone line cord from the modem to a standard RJ-11 type modular telephone line outlet.

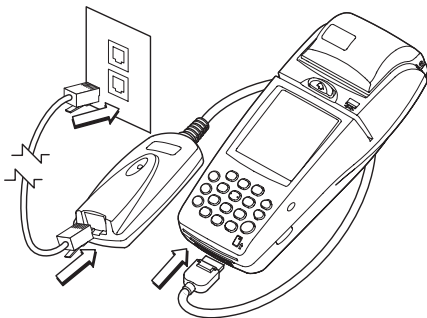


Figure 9-1 External Modem Installation



10. Connecting the Car Adapter

You can use the Car Adapter to provide power to the NURIT 8000 and to charge the installed Lithium-ion battery pack.

To install the Car Adapter:

1. Connect the plug of the Car Adapter cable to the 3-pin power jack on the front panel of the NURIT 8000.
2. Plug the car adapter into the vehicle's electrical power socket.

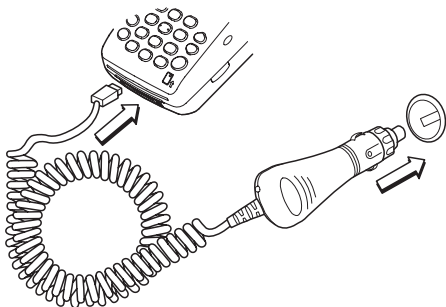


Figure 10-1 Car Adapter Connection

Note

The LED indicator on the Car Adapter lights to indicate the charge status of the battery pack, as described in **"Battery Pack Charge Status" on page 20.**

To remove the Car Adapter:

1. Unplug the Car Adapter from the vehicle's electrical power socket.
2. Unplug the Car Adapter battery charger cable from the 3-pin power jack on the front panel of the NURIT 8000.



11. Loading Paper in the Printer

The NURIT 8000 is equipped with an easy-load thermal printer.

To load a roll of thermal paper in the printer:

1. Place the terminal on a flat, stable surface.
2. Press the paper roll compartment cover release button in the direction indicated by the displayed arrow.
3. Fully open the paper roll compartment cover.
4. Remove the paper roll spindle from the paper roll
5. Remove the tape strip from a new thermal paper roll.
6. Insert the paper roll spindle into the new paper roll.
7. Unroll approximately 5 cm (2 inches) of paper to facilitate the loading process.
8. While holding the roll, place the spindle into the slots on each side of the paper roll compartment.
9. Ensure that the paper roll feeds from the bottom. Approximately 2.5 cm (1 inch) of paper should extend out of the paper roll compartment between the cover and the paper tear bar.
10. Close the paper roll compartment cover and press down firmly until it snaps into place.

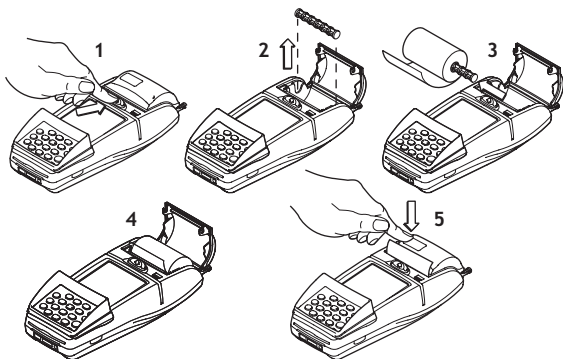


Figure 11-1 Loading Paper in the Printer



12. Installing the Keypad Privacy Shield

To install the keypad privacy shield:

1. Place the terminal on a flat, stable surface, or hold it securely in one hand.
2. Position the tabs on the inner front sides of the keypad privacy shield over the indentations on each side of the terminal.
3. Press down the keypad privacy shield until it snaps into place.

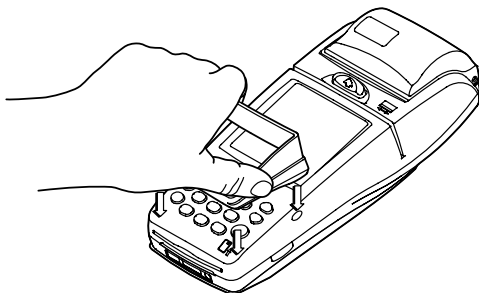


Figure 12-1 Keypad Privacy Shield Installation

Note

Failing to install or removing the keypad privacy shield may render the terminal non-compliant with ISO 9564 for PIN protection and may violate card association requirements for PIN Entry Devices.

To remove the keypad privacy shield:

1. Place the terminal on a flat, stable surface, or hold it securely in one hand.
2. Grasp the keypad privacy shield and pull it away from the terminal.



13. Installing a SIM, SAM, or SD/MMC Card

Depending on the particular model, you can install a variety of electronic memory or processing cards in the NURIT 8000.

These cards include the following:

- Up to two (2) SAM (Secure Access Module) cards can be installed in SAM cardholders 1 and 2, located in the NURIT 8000's Electronic Cards Compartment. SAM cards may be used to hold encryption keys, identify the terminal or merchant to the host, process applications, or a variety of other uses.
- A SIM (Subscriber Identity Module) card identifies the mobile terminal in a GSM or GPRS network. Depending on the particular model, the SIM card may be installed in the SAM2/SIM cardholder, when the terminal has one SAM cardholder and no SD/MMC card, or in the TEL SIM slot in the battery compartment, in terminals with two SAM cardholders or an SD/MMC cardholder.
- SD (Secure Digital) or MMC (Multi-Media Card) cards hold data, such as price lists and offline transaction information.

The diagrams below illustrate the possible configurations of SIM, SAM and SD/MMC cards in the NURIT 8000.

Note

A SIM card must be installed when using a model of the NURIT 8000 that implements GSM or GPRS wireless communications technology.

Caution

The contacts on the electronic cards and cardholders can be easily damaged. Do not bend or scratch when installing or removing an electronic card.



Electronic Cards Configurations

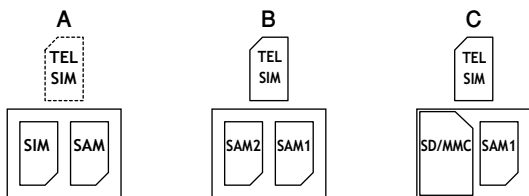


Figure 13-1 Electronic Cards Configurations

Configuration	Description
A	- One SAM card is installed in the SAM1 cardholder. - A SIM card is optionally installed in the SAM2/SIM cardholder. - The TEL SIM Slot is sealed and inaccessible.
B	- Two SAM cards are installed in the SAM1 and SAM2/SIM cardholders. - A SIM card is optionally installed in the TEL SIM slot.
C	- One SAM card is installed in the SAM1 cardholder. - An SD/MMC card is installed in the SD/MMC card slot. - A SIM card is optionally installed in the TEL SIM slot.



Installing SIM and SAM Cards in the Electronic Cards Compartment:

Note

In models that have an accessible TEL SIM slot, it should always be used to install the SIM card, as described on [page 28](#).

To Install SIM and SAM cards:

1. Remove the battery pack from the terminal, as described in “[Installing the Battery Pack](#)” on [page 18](#).
2. Remove the electronic cards compartment cover, if it is in place.
3. Slide the cardholder locking-clasp in the direction indicated by the engraved arrow to the **OPEN** position.

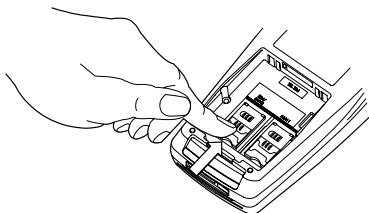


Figure 13-2 SIM/SAM Cardholder Locking-Clasp

4. Lift the cardholder on its hinge to an upright position.
5. Hold the SAM or SIM card so that its chip side is facing down towards the contacts on the reader.
6. Insert the end closest to the chip on the SAM or SIM card into the cardholder.

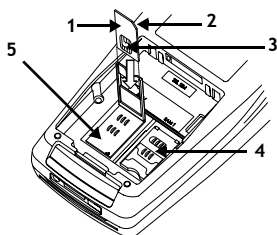


Figure 13-3 SIM/SAM Card Installation

1	SAM or SIM Card	2	Bevelled Corner
3	Metal Contact	4	SAM1 Cardholder
5	SAM2 or SIM Cardholder		

7. Close the SAM or SIM cardholder.
8. Lock the cardholder by sliding the cardholder locking clasp in the direction indicated by the engraved arrow to the **LOCK** position.
9. If required, replace or install the electronic cards compartment cover. See “**Installing the Electronic Cards Compartment Cover**” on page 31.
10. Replace the battery pack, as described in “**Installing the Battery Pack**” on page 18.

Installing a SIM Card in the TEL SIM Slot

The NURIT 8000 includes a slot to install a SIM card, which is required if the terminal implements GSM or GPRS wireless communication technology. See “**Electronic Cards Configurations**” on page 26 for a description of when this slot is used.

To install a SIM card in the TEL SIM slot:

1. Remove the battery pack from the terminal, as described in “**Installing the Battery Pack**” on page 18.
2. Using the pointed end of the touch screen stylus (or any instrument with a similarly-sized pointed end), push the SIM cardholder eject button at the front left side of the **TEL SIM** slot until the SIM cardholder is ejected.

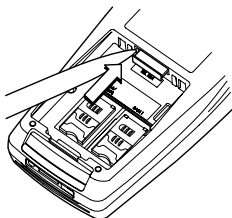


Figure 13-4 **SIM Cardholder Ejection**

3. Extract the SIM cardholder fully from the **TEL SIM** slot and turn it over, revealing the SIM card inside the cardholder.
4. Insert the SIM card into the cardholder with the metal contacts facing up.

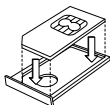


Figure 13-5 **SIM Card Installation**

5. Turn the SIM cardholder over, so that the metal contacts face down, and insert it fully into the **TEL SIM** slot.

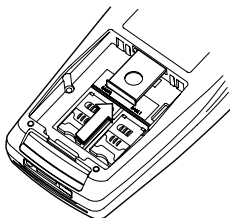


Figure 13-6 **SIM Cardholder Insertion**

6. Replace the battery pack, as described in “Installing the Battery Pack” on page 18.



Installing an SD/MMC Card

Some models of the NURIT 8000 may be equipped with a single SD/MMC (Secure Digital/Multi-Media Card) card slot in the electronic cards compartment.

To install an SD/MMC card:

1. Remove the battery pack from the terminal, as described in “Installing the Battery Pack” on page 18.
2. Remove the electronic cards compartment cover, if it is in place.
3. Hold the SD/MMC card directly above the SD/MMC card slot, with the metal contacts facing down and the narrow edge with the beveled corner pointing towards the slot opening.

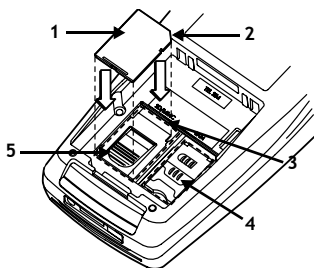


Figure 13-7 Positioning the SD/MMC Card

1	SD/MMC Card	2	Bevelled Corner
3	SD/MMC Card Slot Opening	4	SAM Cardholder
5	SD/MMC Cardholder		

4. Lower the SD/MMC card into position.
5. Press down on the SD/MMC card while sliding it into the slot.

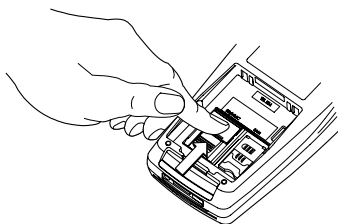


Figure 13-8 Inserting the SD/MMC Card

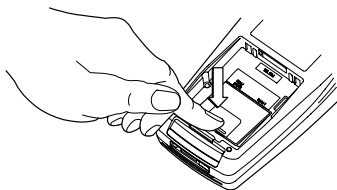
6. If required, replace or install the electronic cards compartment cover. See **“Installing the Electronic Cards Compartment Cover”** on page 31.
7. Replace the battery pack, as described in **“Installing the Battery Pack”** on page 18.

Installing the Electronic Cards Compartment Cover

After installing the SIM, SAM, and/or SD/MMC card(s), you can cover the electronic cards compartment with the supplied plastic cover. You can also protect this cover from being opened by sticking the included void label over the cutout in the cover.

To install the electronic cards compartment cover:

1. Remove the battery pack from the terminal, as described in **“Installing the Battery Pack”** on page 18.
2. Insert the two square tabs at the top of the plastic cover beneath the upper wall of the electronic cards compartment.
3. Press down on the bottom of the cover until the two tabs snap into place under the lower wall of the electronic cards compartment.



**Figure 13-9 Installing the Electronic Cards
Compartment Cover**

4. Peel the back off the **DO NOT REMOVE** void label and stick the label over the cutout in the plastic cover.

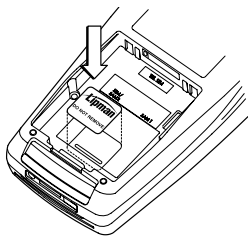


Figure 13-10 Void Label Installation

5. Replace the battery pack, as described in “Installing the Battery Pack” on page 18.



14. Connecting Peripheral Devices

You can connect a variety of optional peripheral devices to the NURIT 8000.

Note

Peripheral devices may require special adapter cables to connect to the NURIT 8000. Certain peripheral devices may also require an external power supply.

Refer to the specific product documentation of the peripheral devices or contact your local Lipman representative for further details.

To connect a peripheral device to the NURIT 8000:

1. Connect the peripheral device to the appropriate end of the adapter cable (see “Optional Accessories” on page 14).
2. Insert the other end of the adapter cable into the data port on the front panel of the NURIT 8000.

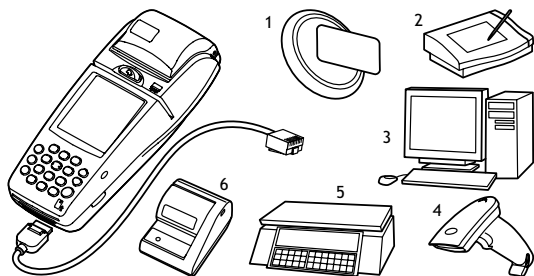


Figure 14-1 Peripheral Device Connection

1	Contactless Card Reader	2	Signature Capture Device
3	PC	4	Barcode Reader
5	Electronic Scale	6	Check Reader



15. Connecting a Cellular Headset

You can use a standard cellular headset with NURIT 8000 models that support cellular telephone communication.

To use the cellular headset:

1. Insert the plug on the headset cable into the headset jack on the front panel of the NURIT 8000.
2. Place the earpiece on the headset cable in your ear.



Figure 15-1 Cellular Headset Connection

Note

When disconnecting the cellular headset, grasp the plug on the headset cable. Do not pull the cable to disconnect the cellular headset.



16. Care and Maintenance

Maintenance Recommendations

The NURIT 8000 has been designed to give you long and trouble-free service with minimal operator care.

To maintain proper functioning of the terminal:

- Keep the terminal in the cleanest possible working and storage environment.
- Protect the terminal from direct sunlight, extreme heat, damp and dust.
- Do not open the AC/DC Power Adapter.
- Do not shake or drop the terminal.
- Do not attempt to open terminal components, other than the battery pack compartment.

Caution

Opening a secure model of the NURIT 8000 will automatically result in erasure of all secret encryption keys and will render the terminal inoperable.

Technical Assistance

Contact your Lipman representative for technical assistance and ordering information regarding specific components or accessories.



Cleaning the NURIT 8000

Caution

- Never use abrasive compounds or solvents, thinners, benzene or synthetic cleansers as they may distort or damage the plastic and critical parts.
- Never clean the keypad with liquids. Use only a lightly dampened cloth or soft brush.
- Never rub or strongly press on the LCD touch screen.

To clean the NURIT 8000:

- Gently wipe off dirt from the terminal with a soft, damp, lint-free cloth.
- A very mild dishwashing detergent can be used to dampen the cloth.
- Alcohol or alcohol-based cleansers may also be used for stains that are more difficult.
- If available, a low-pressure blower can be used to remove dirt or debris accumulated around the keypad buttons and within the paper roll compartment.
- If possible, use a lens blower to remove dust and dirt from the LCD touch screen.
- When necessary, gently wipe the touch screen with a soft cloth or eyeglass lens wiper.

Cleaning the Printer

To clean the printer:

1. Disconnect the terminal from the power supply.
2. Open the paper roll compartment cover.
3. Carefully lift the paper roll and remove any excess pieces of paper or dirt that might be lodged in the compartment. If available, use a low-pressure compressed air gun.
4. Replace the paper roll.
5. Close the paper roll compartment cover.



Shipping the NURIT 8000

In exceptional circumstances, you may be required to ship your NURIT 8000 to a servicing facility.

To ship the NURIT 8000:

1. Carefully pack the NURIT 8000, preferably in the original box.
2. Attach a postage-paid letter to the outside of the package detailing the complaint and including the following information:
 - Serial Number
(displayed on the bottom of the terminal)
 - Date of Purchase
 - Name of Dealer
 - Address of Dealer
3. Send the package prepaid and adequately insured.

Note

Notify a Lipman representative before shipping the NURIT 8000. Shipment must be to an authorized dealer or service center only. Products sent to other locations will be returned at the owner's expense. Contact your Lipman dealer for the correct address.



17. Troubleshooting

The NURIT 8000 has been designed for trouble-free operation. However, minor problems may occur during installation and use.

This section briefly describes how to troubleshoot some possible common problems that may arise during the normal operation of the NURIT 8000.

Before requesting service for the terminal, read this section to find a possible remedy for the problem. If you are still unable to solve the problem, contact a service representative.

Do not try to solve the problem by opening the terminal yourself.

Caution

Turn off the NURIT 8000 or disconnect it from the power supply before connecting or disconnecting any peripheral device.

The terminal appears to have no power

1. Verify that the AC/DC Power Adapter is fully plugged into the AC power outlet and that its barrel connector mates properly with the terminal power jack.
2. Verify that voltage is reaching the AC power outlet by connecting a different device to this outlet. If you suspect any type of problem at this electrical outlet, contact a certified electrician for a professional inspection.
3. Press and hold down the 'ON' key for three (3) seconds.
4. Verify that the battery pack is securely installed and sufficiently charged.
5. If possible, try to operate the NURIT 8000 with a different Lipman supplied AC/DC Power Adapter.
6. Connect the NURIT 8000 to a different AC power outlet.
7. Try to adjust the LCD screen contrast settings, using the designated, model-dependent key combination.
8. If the problem persists, contact an authorized service representative.

**Transactions cannot be completed successfully**

1. Try to perform the transaction using a different magnetic or smart card (model-dependent).
2. Make sure you have inserted or swiped the card in the proper manner.
3. Attempt to complete several transactions manually using the terminal keypad instead of using customer cards. If all these transactions are completed successfully, contact an authorized service representative.
4. If a manually performed transaction is not completed successfully, verify that the wireless transmission quality is sufficient to complete the transaction. Try changing your location to obtain improved transmission quality.
5. If the problem persists, contact an authorized service representative.

**Wireless communication is disrupted
or cannot be established**

1. Try moving the terminal to a more open operating area. An enclosed area degrades the quality of wireless reception and transmission.
2. Verify that the SIM card being used for wireless communication is installed correctly and is not damaged or malfunctioning.
3. In general, the angle of operation does not affect terminal performance. However, for optimal usage, hold the terminal at an angle not exceeding 30°.
4. If the problem persists, contact an authorized service representative.

**Operation with a peripheral device is not successful**

1. Verify that the peripheral device is properly connected to the terminal.
2. Try to verify whether the peripheral device is functioning properly.
3. Replace the cable or the adapter cable being used with the peripheral device.
4. If the problem persists, contact an authorized service representative.

The printer does not function properly

1. Recharge or replace the battery pack.
2. If the problem persists, connect the terminal to the AC power outlet using the AC/DC Power Adapter.
3. Verify that the AC/DC Power Adapter is connected properly to the AC power outlet and that its barrel plug mates with the power jack on the front panel of the terminal. Verify that the LCD display is lit.
4. Verify that the paper roll compartment cover is fully and securely closed.
5. Open the paper roll compartment cover and check whether the paper roll has been used up. If it has, replace the thermal paper roll.
6. Verify the paper roll and spindle are correctly installed.
7. Verify that the paper has been fed to the printer from the bottom of the paper roll.
8. Verify that the paper is not jammed or damaged. If it is, reload the paper.
9. If the problem persists, contact an authorized service representative.

**The printer continues to operate when out of paper**

1. Verify that the paper sensor of the printer mechanism (inside the paper roll compartment) is not blocked by paper or debris.
2. If the problem persists, contact an authorized service representative.

The magnetic card reader does not function properly

1. Verify that the card has been swiped with its magnetic stripe at the bottom and facing the user. See **Figure A-1 “Magnetic Card Reader”** on page 42.
2. Swipe the magnetic card in the opposite direction.
3. If possible, try using a different magnetic card.
4. If the problem persists, contact an authorized service representative.

The smart card reader does not function properly

1. Verify that the chip end of the smart card is fully inserted with chip side up. See **Figure B-1 “Smart Card Reader”** on page 43.
2. If possible, try using a different smart card.
3. If the problem persists, contact an authorized service representative.



Appendix A: Using the Magnetic Card Reader

A magnetic card reader is located between the terminal's LCD touch screen and the release button of the paper roll compartment cover.

To use the magnetic card reader:

1. Grasp the card so that its magnetic stripe is facing you.
2. Place the card into one end of the card reader slot.
3. Swipe the card in a smooth continuous manner in either direction (left-to-right or right-to-left).

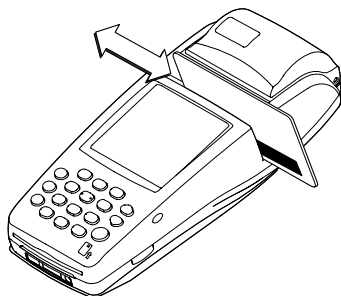


Figure A-1 Magnetic Card Reader



Appendix B: Using the Smart Card Reader

To use the smart card reader:

1. Hold the smart card with the metal chip facing upward and directed toward the opening of the smart card reader at the front of the NURIT 8000.
2. Insert the card into the smart card reader slot.

Note

For guidance, a pictogram near the card slot indicates how to insert the smart card into the smart card reader. In addition, insertion direction arrows may be engraved or inscribed on the smart card.

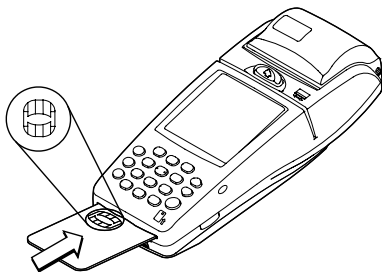


Figure B-1 Smart Card Reader

3. Remove the card when prompted by the terminal, depending on the specific application being used.



Contact Information

Lipman Electronic Engineering Ltd.

Lipman Corporate Headquarters

Tel: +972 3 902 9730

Fax: +972 3 902 9731

mail@lipman.co.il

www.lipman.biz

Lipman USA

Tel: +1 516 4849898

Fax: +1 516 4849057

info@lipmanusa.com

www.lipmanusa.com

Lipman Canada Inc.

Tel: +1 905 3612867

Fax: +1 905 3616401

rclark@lipmancanada.com

www.lipmancanada.com

Lipman Latin America

Tel: +1 305 2344110

Fax: +1 305 9712638

obello@lipmanusa.com

www.lipmanusa.com

Lipman Turkey

Tel: +90 212 2763388

Fax: +90 212 2763898

mail@lipman.com.tr

www.lipman.com.tr

Lipman Australia

Tel: +972 3 902 9730

Fax: +972 3 902 9731

mail@lipman.co.il

www.lipman.biz

Lipman Far East

Tel: +972 3 902 9750

Fax: +972 3 902 7591

info@lipman.co.il

www.lipmanfareast.com

Lipman India

Tel: +972 3 902 9750

Fax: +972 3 902 7591

info@lipman.co.il

www.lipmanindia.com

Dione UK

Tel: +44 1494 486 000

Fax: +44 1494 486 050

info@dione.co.uk

www.dione.co.uk